

The Environmental Education Collection: A Review of Resources for Educators Volume 2



*North American Association for
Environmental Education*

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The Guidelines for Excellence point out six key characteristics of quality environmental education materials. A series of guidelines are listed for each of these characteristics. Finally, each guideline is accompanied by several indicators, which suggest ways of gauging whether the materials being evaluated or developed follow the guidelines. The complete *Guidelines For Excellence* can be ordered from the NAAEE Publications and Membership Office in Troy, Ohio.

Summary of **the Guidelines**

- #1 Fairness **and** accuracy EE materials should be fair and accurate in describing environmental conditions, problems, and issues, and in reflecting the diversity of perspectives on them.
 - 1.1 Factual accuracy
 - 1.2 Balanced presentation of differing viewpoints and theories
 - 1.3 Openness to inquiry
 - 1.4 Reflection of diversity
- #2 Depth: EE materials should foster an understanding and appreciation of environmental **concepts**, conditions, and issues, as appropriate for different developmental levels.
 - 2.1 Focus on concepts
 - 2.2 Concepts **in context**
 - 2.3 Attention to different scales
- #3 Emphasis on skills building EE materials should build lifelong skills that enable learners to address environmental issues.
 - 3.1 Critical and creative thinking
 - 3.2 Applying skills to issues
 - 3.3 Action skills
- #4 **Action** orientation: EE materials should promote civic responsibility, encouraging learners to use their knowledge, personal skills, and assessments of environmental issues as a basis for action.
 - 4.1 Sense of personal stake and responsibility
 - 4.2 Self-efficacy
- #5 Instructional soundness: EE materials should rely on instructional techniques that create an effective learning environment.
 - 5.1 Learner-centered instruction
 - 5.2 Different ways of learning
 - 5.3 Connection to learners' everyday lives
 - 5.4 Expanded learning environment
 - 5.5 Interdisciplinary
 - 5.6 Goals and objectives
 - 5.7 Appropriateness for specific learning settings
 - 5.8 Assessment
- #6 Usability: EE materials should be well designed and easy to use.
 - 6.1 Clarity and logic
 - 6.2 Easy to use
 - 6.3 Long lived
 - 6.4 Adaptable
 - 6.5 Accompanied by instruction and support
 - 6.6 Make substantiated claims
 - 6.7 Fit with state or local requirements

As a set of review criteria, the *Guidelines for Excellence* offers a standard to aim for when considering materials, and a set of ideas about what a well-rounded environmental education curriculum might be like. It is not reasonable to expect that all environmental education materials will follow all of the guidelines. For example, a set of materials might not present differing viewpoints, as outlined in guideline #1.2. This shortcoming does not necessarily mean that the materials should not be used. An instructor could work them into a larger set of activities that explores different viewpoints and helps learners discern opinion and bias in individual presentations of the issue. Likewise, a curriculum project that focuses on the science behind water ecology might not include a discussion of social issues, but may still be used effectively as a science resource within a larger unit on water-related issues.

The write-ups included in *The Environmental Education Collection -A Review of Resources for Educators* were designed to point out the variety of factors an educator may wish to consider when deciding which materials are most appropriate for a particular group of students and how those materials might be used most effectively. Of course, no set of evaluations can be complete, and some important considerations are bound to be missing. Although the reviewers made every effort to evaluate the materials using their professional judgement and their best understanding of the *Environmental Education Materials: Guidelines for Excellence*, it should be understood that the reviews are not perfect. Given this, *The Environmental Education Collection -A Review of Resources for Educators* should be used as a tool to inform decisions, contributing to more effective environmental education.

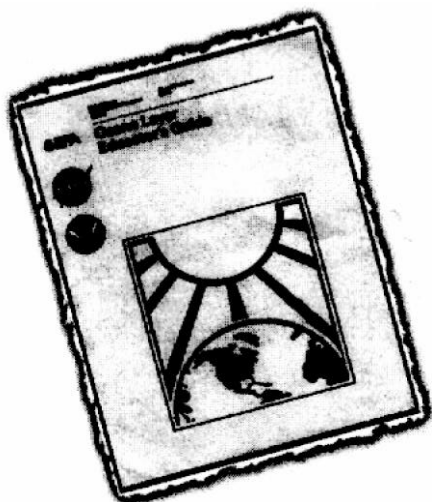
As you review the write-ups, keep these things in mind:

- The reviewers highlighted strengths, and weaknesses or constraints they felt other educators would want to know about before purchasing a resource. It is important to point out that what one reviewer might consider a weakness, another might consider a strength. At the same time, some reviewers felt more strongly about some issues than other reviewers. The writeups are meant to guide you and that you need to read the entire review to get a feel for the curriculum.
- If the materials were not designed to meet one of the key characteristics, this was noted in the write-up.
- Each item reviewed in this compendium was produced by an organization, agency, business or other institution that has its own goals, mission, and agenda. Many different kinds of organizations produced outstanding materials and all materials contained a certain perspective—just by the emphasis on certain subjects, activities, values, and methods.
- The key to effective education lies with educators. A mix of resources have been included in this guide to help educators select the materials that will help them build educationally sound units and programs.
- As much information as possible was included to help users find and order the materials. However, items such as prices, phone numbers, and addresses will often change. If you find an error, please let us know.
- Major subject areas, are also included.

About This Collection

The first section of this resource guide highlights approximately 50 environmental education curriculum materials. Entries are listed in alphabetical order. Each entry contains a summary of the curriculum (In a Nutshell), information about grade levels, subject areas, author, publisher, and price, comments specific to the six key characteristics (What the Reviewers Said!), and a sample of quotations from the reviewers' evaluation sheets (The Bottom Line). The second section contains an annotated listing of support materials. Following this section is a matrix that cross-lists all of the materials and various characteristics (e.g., grade level(s), topics covered, subjects). Finally, we have included a short Feedback Form. Since we plan to produce future volumes in this series, we would appreciate your input.

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Ozone Layer

Educator's Guide



IN A NUTSHELL

United States
Environmental Protection Agency
Office of Air and Radiation

National Center for
Environmental Publications &
Information
P.O. Box 42419
Cincinnati, OH 45452
Reference # 6205J

phone: (800) 490-9198
website: <http://www.epa.gov>

Cost: No charge

SUBJECTS

Health
Fine Arts
Language Arts
Mathematics
Science

This collection of information on the depletion of the ozone layer is designed to give educators scientific background on the issue as well as an assortment of activities to help students understand the problem and its significance. The guide consists of several reprinted scientific articles about the ozone layer and the dangers associated with ozone depletion, eight student investigations, a poster developed by NASA featuring additional classroom activities, supporting documents, and a list of educator resources. The investigations and lesson plans address the nature and structure of gases, model construction, reading scientific data and literature, and conducting experiments about the atmosphere. As the materials and experiments are collected from different sources, their complexity and organization vary. Lessons are targeted to young students as well as older and more sophisticated audiences.

Grade Level
H.S.-Adult

Length
82 pages

Date Published
1995

**THE BOTTOM
LINE**

"Provides extensive background, but not comprehensive on all issues pertaining to ozone depletion."

What the REVIEWERS Said !

Key Characteristics	Strengths Noted	Other Considerations
Fairness and Accuracy	Material is research-based and strong on scientific data.	Does not lend itself to inquiry.
Depth	Provides a comprehensive analysis of issue, addressing personal, local, and global ramifications.	
Emphasis on Skills Building	Makes use of critical thinking and reading skills. Applies skills to a particular issue.	
Action Orientation	Not Applicable.	
Instructional Soundness	Makes use of a variety of instructional methods. Connects to learners' everyday lives.	Limited use of experiential learning approaches. Lends itself to individual instruction.
Usabiity	Poster is user-friendly. Provides an abundance of background information.	Most useful to those with a strong science background. Inconsistency of material format can be a drawback.

“A mix of resources, not to appeal to the typical teacher unless knowledgeable about the scientific technical content.”
 “Vitally important information.”